CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

214793Orig1s000

OTHER REVIEW(S)

Clinical Inspection Summary

Date	4/26/2021
From	Christian Shenouda, MD Good Clinical Practice Assessment Branch Division of Clinical Compliance Evaluation Office of Scientific Investigations
To	Shane Masters, Medical Officer OSM/DIRM August Hofling, Clinical Team Leader, OSM/DIRM Thuy Nguyen, Regulatory Program Manager Division of Imaging and Radiological Medicine
NDA	NDA 214793
Applicant	Progenics Pharmaceuticals, Inc.
Drug	18F-DCFPyL, (b) (4) F 18 (b) (4)
NME	Yes
Proposed Indication(s)	18F-DCFPyL Injection is a radioactive diagnostic agent indicated for PET imaging in prostate cancer patients (b) (4)
Consultation Request Date	Sep 29, 2020
Summary Goal Date	April 28, 2021
Action Goal Date	May 24, 2021
PDUFA Date	May 28, 2021

I. OVERALL ASSESSMENT OF FINDINGS AND RECOMMENDATIONS

Five clinical inspections were performed in support of NDA 214793: the sponsor, the two designated CROs, and the clinical investigators Drs. Barry Siegel and Peter Carroll. Based on the results of these inspections, the studies PyL-2301 and PyL-3301 appear to have been conducted adequately, and the data generated by these sites appear acceptable in support of the respective indication.

II. BACKGROUND

Prostate cancer is the most common cancers among men in the USA, and the annual incidence continues to rise, with an estimated number of new cases of 191,930 projected in 2020 (10% increase from the prior year). The NME 18F-DCFPyL, referred to as (b) (4) hereafter, is a small molecule that binds to the extracellular domain of Prostate-Specific Membrane Antigen (PSMA) with high affinity and has been the subject of extensive investigation since its synthesis and characterization by investigators at the Johns Hopkins University (JHU) in 2011.

(b) (4) is a radioactive diagnostic agent and is proposed for use with positron emission tomography (PET) imaging in prostate cancer patients (b) (4) .

The sponsor, Progenics Pharmaceuticals Inc, has submitted results of two Phase 3 efficacy trials, PyL-2301 and PyL-3301, to support the use of the investigational product for the proposed indication

Protocol PyL-2301

Title: "A Prospective Phase 2/3 Multi-Center Study of 18F-DCFPyL PET/CT Imaging in Patients with Prostate Cancer: Examination of Diagnostic Accuracy" (OSPREY)

Subjects: 385 enrolled (268 in Cohort A and 117 in Cohort B) at 10 centers in the US (n=8) and Canada (n=2)

Study Initiation and Completion Dates: November 30, 2016 to July 19, 2018

Summary
This was a multicenter, open-label study recruiting males with a confirmed diagnosis of prostate cancer who were scheduled for a radical prostatectomy with lymph node dissection (Cohort A) or those who previously had the prostate removed and now had a suspected relapse (Cohort B).

After consent, enrolled subjects were required to have conventional imaging done within 42 days (Cohort A) or 28 days (Cohort B). Blood was then taken to obtain PSA and other routine laboratory tests. Imaging with the investigational agent was done prior to surgery. A radical prostatectomy/lymph node dissection (Cohort A) or biopsy was performed (Cohort B), and histological assessments were compared to imaging with the investigational product.

Imaging Interpretation
Three blinded, independent radiologists reviewed images to determine presence of cancerous lesions on F18-DCFPyL PET-CT scans. The three independent readers were given access to 18F-DCFPyL PET/CT imaging, conventional imaging, and imaging obtained from biopsy procedures. The central readers were blinded to all other clinical information and histopathology assessments. Histological samples from the biopsy or surgery were used as the reference standard in determination of sensitivity and specificity. Local pathologists who generated the histopathology results for the primary endpoint remained blinded to imaging results. (b) (4) (a CRO) was contracted to provide the imaging assessments by the 3 blinded radiologists.

Co-Primary efficacy endpoints

- Sensitivity and specificity of 18F-DCFPyL PET/CT imaging to detect prostate cancer within the prostate gland relative to histopathology (Cohort A)
- Sensitivity of 18F-DCFPyL PET/CT imaging to detect recurrent or metastatic prostate cancer relative to histopathology (Cohort B)

Protocol PyL-3301

Title: "A Phase 3, Multi-Center, Open-Label Study to Assess the Diagnostic Performance and Clinical Impact of 18F-DCFPyL PET/CT Imaging Results in Men with Suspected Recurrence of Prostate Cancer" (CONDOR)

Subjects: 217 subjects consented at 14 study sites in the United States and Canada

Study Initiation and Completion Dates: November 27, 2018 to August 29, 2019

Summary
After consent, all subjects had imaging via conventional screening (MRI, CT or bone scan). If subjects had positive scans, blood levels of PSA were assessed. Enrolled patients received a single dose of 9 mCi (333 MBq) 18F-DCFPyL Injection followed by a single PET/CT scan acquired at 1-2 hours post-dosing.

Only subjects with positive 18F-DCFPyL PET/CT scans (detection of disease at any site) were followed at the efficacy visit(s) to confirm the identified lesions. These subjects were referred for conventional imaging or biopsy within 2-60 days. Those with prostate cancer confirmed via surgery or biopsy were discontinued after confirmation. If surgery or biopsy was not feasible, repeat conventional imaging was performed. If histopathology from surgery or biopsy was not available, and radiation therapy was given, subjects had PSA levels monitored every 3 months up to 9 months. Subjects who were initiated on any systemic therapy for prostate cancer (PC) were discontinued from the study.

Imaging Interpretation
Anonymized 18F-DCFPyL PET/CT scans were assessed by 3 blinded radiologists who worked independently and did not receive any clinical information or other images for each patient. Each image obtained as part of the composite standard of truth was then assessed by the Imaging Truth Panel, a distinct panel of 2 independent readers who worked collaboratively. The Truth Panel provided reads only in cases where there was follow up imaging and/or biopsy performed after PyL PET/CT. In cases where there was no follow up imaging or biopsy, the truth panel did not provide input. The truth panel was provided with all imaging (conventional imaging and images obtained from biopsy procedures, if available) in addition to the PyL scan data. (b) (4) (a CRO) was contracted to provide the imaging assessments from the 3 blinded radiologists and the Truth Panel.

Primary efficacy endpoint
The (Correct Localization Rate) CLR at the patient level, defined as the percentage of patients for whom there was a one-to-one correspondence between localization of at least one lesion identified on 18F-DCFPyL PET/CT imaging and the composite truth standard. The composite truth standard was defined as either:

- Evaluable local histopathology result for prostate cancer from surgery or biopsy performed within 60 days following 18F-DCFPyL PET/CT, or
- In the absence of evaluable histopathology, informative conventional imaging finding(s) of the anatomical correlate to the 18F-DCFPyL-suspected lesion(s) within 60 days following 18F-DCFPyL PET/CT, before the start of locoregional or systemic treatment, or
- In the absence of either of the above, confirmed PSA response (decline from baseline of ≥50%) post-RT without concomitant androgen deprivation therapy (ADT) that was initiated within 60 days following 18F-DCFPyL PET/CT.

Rationale for Site Selection
The following clinical investigator (CI) sites were chosen for inspection using a risk-based approach, including number of enrolled subjects, site efficacy, protocol deviations, and prior inspectional history.

III. INSPECTION RESULTS

1. Progenics Pharmaceuticals
One World Trade Center, 47th Floor; Suite J
New York, New York 10007
Inspection Dates: 2/24/21- 2/6/21

The sponsor, Progenics Pharmaceuticals, was inspected in order to review study conduct and oversight related to the two clinical trials submitted in support of application NDA 214793 (PyL-2301 and PyL-3301). Protocol PyL-2301 was conducted in 10 sites (8 U.S. and 2 Canada) and enrolled a total of 385 patients. Protocol PyL-3301 was conducted in 14 study sites and enrolled 217 patients.

This inspection covered a review of vendor contracts, site training, investigational product handling, electronic data capture systems, quality assurance procedures, safety reporting processes, protocol deviation reporting processes, and monitoring reports. The Standard Operating Procedures (SOPs) for vendor selection and contracts, transfer of regulatory obligation agreements, and selection of clinical investigators were also reviewed. No issues were identified.

The training materials were reviewed and were deemed appropriate for matters including, but not limited to, safety reporting, recruitment, drug handling, data management, and image collection.

Electronic Trial Master File (eTMF) documentation for the two clinical investigators (Drs. Peter Carroll and Barry Siegel) selected for inspection was reviewed. The eTMF contained monitoring reports for these sites, which included pre-study reports, site initiation reports, routine monitoring reports, and follow up letters. The sponsor appeared to maintain appropriate oversight of the trial throughout its conduct. The database was locked according to protocol for both studies.

2. (b) (4)

Protocol PyL-3301
Inspection Dates: (b) (4)

This CRO provided imaging review for data obtained in Protocol PyL-3301 (CONDOR). The inspection included the review of the following records: contract agreements, primary endpoint data collection, written procedures/charters, training records, record retention, processes of acquiring scans or images from study sites, evaluation by independent readers, and data transfer activities to the sponsor.

Data verification focused on the sites of Dr. Peter Carroll (Site #107) and Dr. Barry Siegel (Site #105), who had been selected for clinical investigator inspections. PyLARIFY scan reader 1, 2, and 3 source data (i.e., prostate cancer presence and location) for 100% of subjects enrolled at these sites were compared to the data line listings provided by the sponsor. There were no discrepancies found.

Of note, this CRO provided only output of scan reads to determine the presence of tumors and did not provide final classification regarding correct localization rate (CLR), as this was done by the sponsor and utilized additional reference data that the CRO readers did not have access to in order to maintain blinding. The inspection was also able to evaluate the independence of the readers and noted that there were no instances of unblinding.

3. (b) (4)

Protocol PyL-2301
Inspection Dates: (b) (4)

This CRO provided imaging review services for data obtained in Protocol PyL-2301 (OSPREY). The inspection included a review of financial disclosures, personnel training programs, and data collection and handling, which included reader reports for the Baseline CTs/MRIs, the Baseline bone scans, the PyLARIFY PET/CT scans, and biopsies. Financial Disclosures were obtained for all radiologists contracted to read scans for the study as per protocol.

There were 116 subjects' records reviewed (30% of the study population [n=385]). The 116 subjects were enrolled via site #s 101, 106 and 107, as these were noted to be the highest enrolling centers. Blinding procedures were in place, and there was no evidence of unintentional unblinding. The following information from the reader reports was compared against the data line listings provided by the sponsor: 1) type of Baseline imaging (CT/MRI) and date; 2) type of Baseline bone scan and date; and 3) image result (i.e., positive/negative result). No discrepancies were noted.

4. Peter Carroll
University of California San Francisco, Urology-UCSF
Mission Hall, 550 16th Street, 6th Floor
San Francisco, CA 94158
Protocol PyL-2301 (Site # 106); Protocol PyL-3301(Site # 107)
Inspection Dates: 2/16/21 – 2/24/21

For Protocol PyL-2301, there were 120 subjects screened, 77 enrolled, and 74 subjects completed the study. Subjects #106-(b) (6) and #106-(b) (6) received IP but were discontinued based on the investigator's decision to use systemic therapy. Subject #106-(b) (6) was consented but not dosed; this subject was classified as a screen fail as he did not meet inclusion criteria of being scheduled for radial proctectomy.

For Protocol PyL-3301, there were 54 subjects screened, 15 enrolled, and 14 subjects completed the study. Subject 107-(b) (6) was withdrawn from the study because the treating oncologist decided to start androgen deprivation therapy (ADT) immediately after the PyL PSMA imaging procedure.

The records reviewed for both studies included, but were not limited to, Form FDA 1572s, IRB approval letters, financial disclosure forms, training records, informed consent forms, monitor visit reports, laboratory accreditations, and subject-specific documents.

During the inspection of Protocol PyL-2301, 26 of the 77 subject records (34%) were reviewed. Subject-specific documents reviewed included consent forms, completed case report form worksheets, notes for each study visit, lab requisitions and results, pathology reports, and pre-operative and operative reports. There were no SAEs, and no underreporting of adverse events was noted. The clinical investigator appeared to have complied with the protocol in terms of subject screening and enrollment, dosing, and procedures/evaluations.

During the inspection of Protocol PyL-3301, records for 100% of subjects were reviewed. These records included consent forms, completed case report form worksheets, notes for each study visit, lab requisitions and results, pathology reports, and pre-operative and operative reports. There were no SAEs reported at this site, and there was no evidence of underreporting of adverse events. The clinical investigator appears to have complied with the protocol in terms of subject screening and enrollment, dosing, and procedures/evaluations.

It was noted during the inspections that there were 8 cases where some screening laboratory values were not signed prior to dosing. The study team confirmed that all screening labs were reviewed prior to dosing, and significant findings were acted upon accordingly. Those deemed as "non-clinically significant" or "NCS" were reportedly reviewed contemporaneously but signed off later.

5. Barry Siegel
Washington University School of Medicine,
510 S. Kings Highway, Box 8223
Saint Louis, MO 63110
Protocol PyL-2301 (Site # 107); Protocol PyL-3301(Site #105)
Inspection Dates: 3/29 to 4/2/2021

For Protocol PyL-2301, 28 subjects were screened, 25 were enrolled, and one subject was discontinued. The discontinued subject was Subject #107 (b) (6), and this subject was dosed, but the investigator made the decision to pursue alternative management, so the subject was not included in the evaluable data set. Records for all 25 enrolled subjects were reviewed.

For the Protocol PyL-3301, 41 subjects were screened, and 40 subjects were enrolled, all of whom completed the study. Sixteen subject records were reviewed for source documentation, while an additional 10 (n=26) were reviewed for consent verification.

Study records reviewed for both studies included but were not limited to: IRB approval letters and correspondence, monitoring reports, informed consent forms, subject medical records, financial disclosure reports, case report forms, pathology reports, imaging/scan results, dosing records, site signature and responsibility logs, and site training documentation.

Subject-specific records were reportedly adequate and included the following: subjects' eligibility, protocol-required study visits and procedures, progress notes, medical histories, nursing notes, administration of investigational drug, dose calculations, safety monitoring and reporting, and protocol deviations. Audit trails were available for review for the eCRF data and showed queries on and changes to entry values, including the date/time and person responsible for the changes.

There was no evidence of under-reporting of adverse events. Protocol deviations were reported to the sponsor and to the IRB per both the protocol and the IRB requirements. The clinical investigator appears to have complied with both protocols with respect to required procedures and evaluations, storage and maintenance of investigational product, administration of investigational product, data collection, and follow-up of subjects.

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FOOD AND DRUG ADMINISTRATION
Center for Drug Evaluation and Research
Office of Prescription Drug Promotion

****Pre-decisional Agency Information****

Memorandum

Date: April 9, 2021

To: Shane Masters, M.D.
Division of Imaging and Radiation Medicine (DIRM)

Thuy M. Nguyen, Regulatory Project Manager, DIRM

Dr. Alex Hofling, MD, PhD – Clinical Team Lead & CDTL, DIRM

From: David Foss, Regulatory Review Officer
Office of Prescription Drug Promotion (OPDP)

CC: Jim Dvorsky, Team Leader, OPDP

Subject: OPDP Labeling Comments for PYLARIFY® ([(b) (4)] F 18 injection), for intravenous use

NDA: 214793

In response to DIRM's consult request dated March 11,2021, OPDP has reviewed the proposed product labeling (PI) carton and container labeling for the original NDA submission for PYLARIFY.

Labeling: OPDP's comments on the proposed labeling are based on the draft labeling received by electronic mail from DIRM on April 8, 2021, and are provided below.

Carton and Container Labeling: OPDP has reviewed the attached proposed carton and container labeling received by electronic mail from DIRM on April 8, 2021, and we do not have any comments.

Thank you for your consult. If you have any questions, please contact David Foss at (240) 402-7112 or david.foss@fda.hhs.gov.

16 Page(s) of Draft Labeling have been Withheld in Full as B4 (CCI/TS) immediately following this page

Reference ID: 4776837

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LABEL AND LABELING REVIEW
Division of Medication Error Prevention and Analysis (DMEPA)
Office of Medication Error Prevention and Risk Management (OMEPRM)
Office of Surveillance and Epidemiology (OSE)
Center for Drug Evaluation and Research (CDER)

*** This document contains proprietary information that cannot be released to the public***

Date of This Review:	March 19, 2021
Requesting Office or Division:	Division of Medical Imaging and Radiation Medicine (DMIRM)
Application Type and Number:	NDA 214793
Product Name, Dosage Form, and Strength:	Pylarify ([redacted] (b) (4) F 18) injection, 37 MBq/mL to 2,960 MBq/mL (1 mCi/mL to 80 mCi/mL)
Product Type:	Single Ingredient Product
Rx or OTC:	Prescription (Rx)
Applicant/Sponsor Name:	Progenics Pharmaceuticals (Progenics)
FDA Received Date:	September 29, 2020
OSE RCM #:	2020-2027
DMEPA Safety Evaluator:	Devin Kane, PharmD
DMEPA Team Leader:	Hina Mehta, PharmD

Reference ID: 4762171

1 REASON FOR REVIEW

Progenics Pharmaceuticals submitted 505(b)(1) NDA 214793 Pylarify ([(b) (4)] F 18) injection on September 29, 2020. Pylarify is a radioactive diagnostic agent proposed for positron emission tomography (PET) imaging in prostate cancer patients [(b) (4)]. We evaluated the proposed Pylarify prescribing information and vial container label for areas of vulnerability that may lead to medication errors.

2 MATERIALS REVIEWED

We considered the materials listed in Table 1 for this review. The Appendices provide the methods and results for each material reviewed.

Table 1. Materials Considered for this Label and Labeling Review	
Material Reviewed	Appendix Section (for Methods and Results)
Product Information/Prescribing Information	A
Previous DMEPA Reviews	B – N/A
Human Factors Study	C – N/A
ISMP Newsletters*	D – N/A
FDA Adverse Event Reporting System (FAERS)*	E – N/A
Other	F – N/A
Labels and Labeling	G

N/A=not applicable for this review
*We do not typically search FAERS or ISMP Newsletters for our label and labeling reviews unless we are aware of medication errors through our routine postmarket safety surveillance

3 OVERALL ASSESSMENT OF THE MATERIALS REVIEWED

Progenics submitted a 505(b)(1) application on September 29, 2020 to obtain marketing approval of Pylarify injection. We performed a risk assessment of the proposed prescribing information (PI) and vial container label for Pylarify to determine whether there are deficiencies that may lead to medication errors and other areas of improvement.

Our evaluation of the proposed PI and vial container label for Pylarify identified areas of vulnerability that may lead to medication errors. We note inconsistencies throughout the proposed prescribing information (PI) and vial container label for the strength presentation and storage requirements. We provide our recommendations below.

4 CONCLUSION & RECOMMENDATIONS

Reference ID: 4762171

Our evaluation of the proposed Pylarify prescribing information (PI) and vial container label identified areas of vulnerability that may lead to medication errors. Below, we have provided recommendations in Section 4.1 for the Division and Section 4.2 for the Applicant. We ask that the Division convey Section 4.2 in its entirety to Progenics Pharmaceuticals so that recommendations are implemented prior to approval of this NDA.

4.1 RECOMMENDATIONS FOR DIVISION OF MEDICAL IMAGING AND RADIATION MEDICINE (DMIRM)

A. General Information Regarding Highlights and Full Prescribing Information

1. We note that the presentation of the conditionally acceptable proprietary name throughout the highlights of prescribing information and full prescribing have (b) (4) Proprietary name should be in UPPERCASE letters in the following places: Highlights Limitation Statement (appears twice) and product title. Thus, we recommend that the proprietary name is presented as 'PYLARIFY' throughout the highlights of prescribing information. For the Full Prescribing information, we recommend consistency throughout the PI and displaying the name as either 'Pylarify' or 'PYLARIFY' throughout.

B. Highlights of Prescribing Information

1. Dosage and Administration

a. We note that Pylarify is to be administered as a single intravenous bolus dose. We recommend revising the first bullet under the highlights of dosage and administration section to align with the language used in Section 2.2 and include the word "single". Revise this bullet to read "Recommended dose is 333 MBq (9 mCi), administered as a single bolus intravenous injection."

2. Dosage Forms and Strengths

a. Consider stating numbers greater than or equal to 1,000 with a comma to prevent the reader from misinterpreting thousands "1000" as hundreds "100" or ten-thousands "10000" (e.g. 1,000 MBq instead of 1000 MBq), per Draft Guidance: Container and Carton April 2013 (lines 475-476), and ISMP's List of Error-Prone Abbreviations, Symbols, and Dose Designations. We recommend revising the proposed strength to read "37 MBq/mL to 2,960 MBq/mL (1 mCi/mL to 80 mCi/mL) of (b) (4) F 18 in a multiple-dose vial".

C. Full Prescribing Information

1. Section 2: Dosage and Administration

a. We note each the necessary volume of Pylarify to administer is based on the measured activity, volume, calibration time, and date. As currently presented, Section 2.2 does not contain a bullet instructing the end user to calculate the necessary volume to administer. We recommend adding a bullet underneath the third bullet that reads "Calculate the necessary volume to administer based on measured activity, volume, calibration time, and date."

b. We note in Section 2.4 there are values that are presented without their respective units. We recommend revising this section to include the appropriate units after all values.

c. As currently presented, the last line of Section 2.4 contains the symbol '-' with the intended meaning of 'to' for the imaging time range. We recommend removing the use of the symbol and replacing it with its intended meaning of 'to' in order to avoid any confusion.

d. We note in Table 1 of Section 2.6 the symbol 'µ' used to represent 'micro' in the units 'microgray' and 'microsievert'. We recommend removing the use of the symbol and presenting the units as 'mcGy' and 'mcSv' to avoid any confusion.

2. Section 3: Dosage Forms and Strengths

a. Consider stating numbers greater than or equal to 1,000 with a comma to prevent the reader from misinterpreting thousands "1000" as hundreds "100" or ten-thousands "10000" (e.g. 1,000 MBq instead of 1000 MBq), per Draft Guidance: Container and Carton April 2013 (lines 475-476), and ISMP's List of Error-Prone Abbreviations, Symbols, and Dose Designations. We recommend revising the proposed strength to read "37 MBq/mL to 2,960 MBq/mL (1 mCi/mL to 80 mCi/mL) of (b) (4) F 18 (b) (4)".

3. Section 16: How Supplied/Storage and Handling

a. As currently presented, Section 16.1 states the strength is based on the calibration date and time while the rest of the PI states the strength is based off (b) (4). We recommend using consistent language and revising the language used to read "(b) (4) to align with the rest of the PI.

b. Consider stating numbers greater than or equal to 1,000 with a comma to prevent the reader from misinterpreting thousands "1000" as hundreds "100" or ten-thousands "10000" (e.g. 1,000 MBq instead of 1000 MBq), per Draft Guidance: Container and Carton April 2013 (lines 475-476), and ISMP's List of Error-Prone Abbreviations, Symbols, and Dose Designations. We recommend revising the proposed strength to read "37 MBq/mL to 2,960 MBq/mL (1 mCi/mL to 80 mCi/mL) of (b) (4) F 18 (b) (4)".

4.2 RECOMMENDATIONS FOR PROGENICS PHARMACEUTICALS

We recommend the following be implemented prior to approval of this NDA:

A. Vial Container Label

1. We note that the presentation of the conditionally acceptable proprietary name on the proposed vial container label has (b) (4) Thus, we recommend that the proprietary name is presented as 'Pylarify' or 'PYLARIFY' on the proposed vial container label.
2. As currently presented, the strength on the proposed vial container label is presented as "1 mCi/mL to 80 mCi/mL at end of synthesis". We recommend presenting the strength on the label in megabecquerels per milliliter with the millicurie per milliliter equivalent values in parenthesis to align with the prescribing information. Revise the strength to read "37 MBq/mL to 2,960 MBq/mL (1 mCi/mL to 80 mCi/mL) at end of synthesis".
3. We note in the product description that not all values are presented with the appropriate units immediately following the value. We recommend including the appropriate units after each value on the vial container label.
4. We recommend including a comma for all values that are greater than 1,000 in order to prevent any confusion. We recommend including a comma for "2,960 MBq/mL".
5. We note the storage recommendations on the proposed vial container label only includes (b) (4), whereas the prescribing information states that Pylarify is to be stored in original container with radiation shielding. We recommend including the statement "Store upright in a shielded container at 20˚C to 25˚C (68˚F to 77˚F) controlled room temperature".
6. As currently presented, the proposed vial container label does not contain a statement referring the end user to the prescribing information for the recommended dose. We recommend including the statement "Recommended Dosage: See Prescribing Information" on the vial container label underneath the "Calculate correct dosage..." statement.

APPENDICES: METHODS & RESULTS FOR EACH MATERIALS REVIEWED

APPENDIX A. PRODUCT INFORMATION/PRESCRIBING INFORMATION

Table 2 presents relevant product information for Pylarify received on September 29, 2020 from Progenics Pharmaceuticals.

Table 2. Relevant Product Information for Pylarify	
Initial Approval Date	N/A
Active Ingredient	[redacted] (b) (4) F 18
Indication	Pylarify is a radioactive diagnostic agent indicated for positron emission tomography (PET) imaging in prostate cancer patients [redacted] (b) (4)
Route of Administration	Intravenous
Dosage Form	injection
Strength	37 MBq/mL to 2,960 MBq/mL (1 mCi/mL to 80 mCi/mL)
Dose and Frequency	333 MBq (9 mCi) administered as a bolus intravenous injection
How Supplied	Pylarify injection is supplied in a 50 mL multiple-dose glass vial (NDC# 71258-022-01) containing a clear, colorless solution at a strength of 37 MBq/mL to 2,960 MBq/mL (1 mCi/mL to 80 mCi/mL) [redacted] (b) (4) F 18 at calibration time and date.
Storage	Store Pylarify at controlled room temperature (USP) 20°C to 25°C (68°F to 77°F). Pylarify does not contain a preservative. Store Pylarify in the original container with radiation shielding. The expiration date and time are provided on the container label. Use Pylarify within 10 hours from the time of end of synthesis.

APPENDIX G.LABELS AND LABELING

G.1List of Labels and Labeling Reviewed

Using the principles of human factors and Failure Mode and Effects Analysis,[a] along with postmarket medication error data, we reviewed the following Pylarify labels and labeling submitted by Progenics Pharmaceuticals.

- Vial Container label received on September 29, 2020
- Prescribing Information (Image not shown) received on September 29, 2020, available from \\CDSESUB1\evsprod\nda214793\0001\m1\us\114-label\1141-draft-label\proposed.pdf

G.2Label and Labeling Images

- Vial Container Label

[a] Institute for Healthcare Improvement (IHI). Failure Modes and Effects Analysis. Boston. IHI:2004.

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/s/

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HINA S MEHTA
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